

# Bongki Moon's Publications

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## Flash Memory Database Systems

- Dynamic In-Page Logging for Flash-Aware B-Tree Index,  
*Gap-Joo Na and Sang-Won Lee and Bongki Moon*, Proceedings of the 18th International Conference on Information and Knowledge Management (CIKM'09), pages 1485-1488, Hong Kong, China, November 2009 (poster presentation).
- Advances in Flash Memory SSD Technology for Enterprise Database Applications  
*Sang-Won Lee, Bongki Moon and Chanik Park*, ACM SIGMOD International Conference on Management of Data, pages 863-870, Providence, Rhode Island, June, 2009 (Industrial Track).
- In-Page Logging B-Tree for Flash Memory  
*Gap-Joo Na, Bongki Moon and Sang-Won Lee*, International Conference on Database Systems for Advanced Applications, pages 755-758, Brisbane, Australia, April, 2009 (demo paper).
- A Case for Flash Memory SSD in Enterprise Database Applications  
*Sang-Won Lee, Bongki Moon, Chanik Park, Jae-Myung Kim and Sang-Woo Kim*, ACM SIGMOD International Conference on Management of Data, pages 1075-1086, Vancouver, Canada, June, 2008 (Industrial Track). ([Presentation slides](#))
- Design of Flash-Based DBMS: An In-Page Logging Approach  
*Sang-Won Lee and Bongki Moon*, ACM SIGMOD International Conference on Management of Data, pages 55-66, Beijing, China, June, 2007. ([Presentation slides](#))

## XML Indexing, Filtering, Streaming and Query Processing

- Locating XML Documents in a Peer-to-Peer Network Using Distributed Hash Tables  
*Praveen Rao and Bongki Moon*, IEEE Transactions on Knowledge and Data Engineering, 21(12):1737-1752, December 2009.
- Bitmap Indexes for Relational XML Twig Query Processing,  
*Kyong-Ha Lee and Bongki Moon*, Proceedings of the 18th International Conference on Information and Knowledge Management (CIKM'09), pages 465-474, Hong Kong, China, November 2009.
- Fast XML Document Filtering by Sequencing Twig Patterns  
*Joonho Kwon, Praveen Rao, Bongki Moon and Sukho Lee*, ACM Transactions on Internet Technology, 9(4):Article 13, September 2009.
- A Data Parallel Algorithm for XML DOM Parsing  
*Bhavik Shar, Praveen Rao, Bongki Moon and Mohan Rajagopalan*, Sixth International XML Database Symposium (XSym 2009), pages 75-90, Lyon, France, August 2009.
- An Internet-Scale Service for Publishing and Locating XML Documents,  
*Praveen Rao and Bongki Moon*, Proceedings of the 25th International Conference on Data Engineering (ICDE'2009), pages 1459-1462, Shanghai, China, March 2009 (demo paper).
- Value-Based Predicate Filtering of XML Document,  
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- Net-X: Unified Data-Centric Internet Services,  
*Praveen Rao, Justin Cappos, Varun Khare, Bongki Moon and Beichuan Zhang*, Third

- International Workshop on Networking Meets Databases (NetDB'07), Cambridge, MA, April, 2007.
- A Clustering Method Based on Path Similarities of XML Data,  
*Ilhwan Choi, Bongki Moon and Hyoung-Joo Kim*, Data and Knowledge Engineering, 60 (2):361-376, February 2007.
  - Sequencing XML Data and Query Twigs for Fast Pattern Matching,  
*Praveen R. Rao and Bongki Moon*, ACM Transactions on Database Systems, 31(1):299-345, March 2006.
  - SketchTree: Approximate Tree Pattern Counts over Streaming Labeled Trees,  
*Praveen R. Rao and Bongki Moon*, Proceedings of the 22nd International Conference on Data Engineering (ICDE'2006), Atlanta, GA, April 2006.
  - FiST: Scalable XML Document Filtering by Sequencing Twig Patterns,  
*Joonho Kwon, Praveen R. Rao, Bongki Moon and Sukho Lee*, Proceedings of the 31th International Conference on Very Large Databases (VLDB'2005), pages 217-228, Trondheim, Norway, August 2005.
  - PRIX: Indexing and Querying XML Using Prufer Sequences,  
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  - XISS/R: XML Indexing and Storage System Using RDBMS,  
*Philip J. Harding, Quanzhong Li and Bongki Moon*, Proceedings of the 29th International Conference on Very Large Databases (VLDB'2003), pages 1073-1076, Berlin, Germany, September 2003. (demo paper)
  - Partition Based Path Join Algorithms for XML Data,  
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  - Indexing and Querying XML Data for Regular Path Expressions,  
*Quanzhong Li and Bongki Moon*, Proceedings of the 27th International Conference on Very Large Databases (VLDB'2001), pages 361-370, Rome, Italy, September 2001.

## Time Series, Temporal and Mobile Databases

- Skyline Index for Time Series Data,  
*Quanzhong Li, Ines Fernando Vega Lopez and Bongki Moon*, IEEE Transactions on Knowledge and Data Engineering, 16(6):669-684, June 2004.
- Adaptive Cell-Based Index for Moving Objects,  
*Wonik Choi, Bongki Moon and Sukho Lee*, Data and Knowledge Engineering 48(1):75-101, January 2004.
- Main Memory-Based Algorithms for Efficient Parallel Aggregation for Temporal Databases,  
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*Jose Alvin G. Gendrano, Bruce C. Huang, Jim M. Rodrigue, Bongki Moon and*

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## Spatial and Multidimensional Databases

- Spatiotemporal Aggregate Computation: A Survey,  
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- Bulk Insertion for R-tree by Seeded Clustering (Journal version),  
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- A Case for Parallelism in Data Warehousing and OLAP,  
*Anindya Datta, Bongki Moon and Helen Thomas*, Ninth International Workshop on Database and Expert Systems Applications (DEXA'98), pages 226-231, Vienna, Austria, August 1998.
- Study of Scalable Declustering Algorithms for Parallel Grid Files,  
*Bongki Moon, Anurag Acharya and Joel Saltz*, Proceedings of the 10th International Parallel Processing Symposium, pages 434-440, Honolulu, Hawaii, April 1996. (Extended version).

## Scalable Web and Database Servers

- Distributed Cooperative Apache Web Server,  
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- The Virtual Microscope,

- Renato Ferreira, Bongki Moon, Jim Humphries, Alan Sussman, Joel Saltz, Robert Miller, Angelo Demarzo, American Medical Informatics Association, 1997 Annual Fall Symposium, Nashville, TN, October 1997, Best Application Paper award.*
- The Design and Evaluation of a High-Performance Earth Science Database,  
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## High Performance Computing

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- Parallel Monte Carlo Simulation of Three-Dimensional Flow over a Flat Plate,  
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